central gyri were small, but appeared normal when studied microscopically.

Probst reports a case in which infantile spinal paralysis occurred at the fourth year of life, and resulted in atrophy of the left upper and the right lower limb. The man died at the age of 68. The anatomical findings in the spinal cord were similar to those reported by others in this disease.

Only three cases of anterior poliomyelitis of childhood in which the condition of the brain has been studied have been reported (Sanders, Rumpf, Colella). In these three cases, as well as in Probst's, atrophy of certain parts of the brain was found. Sanders found atrophy of the central gyri and of the paracentral lobe of one side. Rumpf also found atrophy of the central gyri of one side, and in both these cases the atrophy was on the side of the brain opposite to the affected limbs. In Colella's patient the right leg was paralyzed, and both left central gyri, the left paracentral lobule, the uppermost part of the right anterior central gyrus, and the anterior part of the right paracentral lobule were atrophied. In Probst's case the cental gyri of both sides, on the right side especially the upper part, were atrophied, and the left marginal and angular gyri were less distinct.

Sanders and Rumpf found no microscopical anomalies in the atrophied gyri, but Colella noted diminution in the number of nerve cells and fibers. In Probst's case the cortex was only half as thick as normal, the nerve cells were small, the white matter within the affected gyri was diminished in amount, and the neuroglia was somewhat proliferated. The internal capsule in the location of the pyramidal tract was small in the cases of Rumpf, Colella and Probst, and the fibers here were of small caliber. Probst, like the earlier writers, noticed that the pyramidal tract was atrophied throughout its course, and in his case both lateral motor tracts in the cord were small.

These findings seem to indicate that the central motor neurons do not develop normally when the peripheral neurons are destroyed early in childhood, but the existence of atrophy of the central neurons following injury of the peripheral in adult age remains to be demonstrated.

SPILLER.

140. A CASE OF PROTRACTED SLEEP EXTENDING OVER FIFTY DAYS.

Skerrit and Stewart (Brit. Med Jour, No. 1970, p, 957).

A young man of 17 years, after severe study with insufficient sleep, complained for a period of six weeks of feeling tired on slight exertion, and then developed an overpowering drowsiness, which rapidly increased to profound and continuous somnolence. For ten days every effort was made to keep him awake, without success, and thereafter attention was directed merely to the prevention of body waste. There was nothing suggestive of catalepsy, there was no anesthesia, and his general appearance was good. He lay in a calm, placid sleep uniformly, and when roused to take liquid nourishment (every four hours) he would speak, in reply to direct questions, very much as one does who talks in his sleep. It would sometimes take ten minutes or a quarter of an hour to rouse him sufficiently to prevent his being choked in the attempt to get down the egg and milk, or beef-tea, or other nourishment. Indeed, he would frequently drop off to sleep while in the act of putting the cup between his lips. The sleep was never a "profound" one, and when the calls of Nature demanded his attention there was an obvious desire to respond to them; but he would frequently drop off to sleep again before he could be assisted and the inclination to evacuate his bowels or bladder would then disappear. Gradually this partial response ceased and he passed in bed his motions, which cascara sagrada kept fairly free. Every effort was made to get him to empty his bladder naturally by propping him up against the wall and otherwise, but it was generally a failure. During this period priapism was very marked, but there were never any seminal emissions, and his hands had to be tied to the bedstead to prevent his practising onanism—a habit to which he had never been addicted. He remained in this condition till two months after the onset; then he began, while half awake and half asleep, to talk as if in a dream, sometimes saying things which were ridiculous, and occasionally asking how long he had been ill. He also showed evidence of an emotional tendency unusual to him. His weight, which previously had been gradually decreasing, began now slowly to return to the normal condition, and he was allowed to sit up for an hour or two daily. The sense of taste, which was apparently quite absent previously, also gradually returned, but it was not entirely restored for some time.

For several months after the mental faculties were completely restored the patient had considerable difficulty in walking, on account of incöordination and a tendency to fall to one side. Recovery was ultimately complete.

The author says that only eighteen other cases of such protracted sleep are on record, and of these four died in the sleep. Weir Mitchell has given an epitome of these eighteen cases in the *Transactions of the College of Physicians of Philadelphia*, Vol. III, and more information on the subject will be found in Gould and Pyle's "Anomalies and Curiosities of Medicine." PATRICK.

THERAPY.

141. VERSUCHE ÜBER COCAINISIRUNG DES RÜCKENMARKES (Cocainization of the Spinal Cord). Bier (Deutsche Zeitschr. für Chirurgie, April, 1899).

The author reports the results of some remarkable experiments that he has been making to test the feasibility of rendering large areas of the body anesthetic by cocainization of the spinal cord. The method employed was to throw minute quantities of the drug into the subdural space after the manner of Quincke's lumbar punction. By the use in this way of 0.005-0.01 gm. of cocaine he was enabled to perform painlessly such operations as resection of knee and ankle-joints, necrotomy of the tibia, resection of the ischium, resection in a case of complicated fracture of the femur, and treatment of an osteomyelitis femoris. As drawbacks to the procedure there were manifested in several cases disquieting symptoms, such as severe headache, nausea and vomiting, which lasted for several days. In order to estimate the intensity of these more exactly the author tried the injection both on himself and his colleague Hildebrand, finding that anesthesia of the whole of the lower extremities set in after an interval of from 5 to 8 minutes. A dose of 0.005 gm. maintained this state for about 45 minutes, then sensibility slowly returned. The after-effects were marked on both experimenters. Bier was even obliged to remain in bed for several days. Before making further trials on the human subject the author intends to investigate more fully the effects on animals.

JELLIFFE.

142. HYDATID OF THE BRAIN—OPERATION—RECOVERY (Vance, Australasian Medical Gazette, Feb. 21, 1898).

A man of thirty-six was admitted to hospital with right hemiparesis and aphasia, the trouble having begun six months previously with twitchings of the tongue and arm, gradually followed by the other